

METHOD AND APPARATUS FOR IDENTIFYING A VERTICAL BLANKING  
INTERVAL IN A TELEVISION SIGNAL

ABSTRACT OF THE DISCLOSURE

5           Various techniques and associated embodiments are disclosed for providing defensive  
measures against "black boxes," wherein the techniques utilize unconventional schemes for  
detecting the vertical blanking interval (VBI) of a video signal containing a copy protection  
signal. The unconventional schemes would be of particular interest to the black boxes, which  
must locate the VBI to generate a vertical rate signal in order to perform the task of illegally  
10   removing the copy protection signal. The unconventional schemes utilize the particular  
characteristics or peculiarities of the video signals in the VBI to detect the VBI and generate  
therefrom a reliable vertical or frame rate signal. The characteristics include various pulse  
spacings and/or pulse widths which may occur in specific lines in the VBI, and which may be  
detected to allow deriving the reliable vertical or frame rate signal. Alternatively, techniques  
15   for modifying the characteristic signals of the VBI also are disclosed to prevent the derivation  
of a correct or reliable vertical or frame rate signal utilizing the unconventional schemes of  
detection of previous mention. In a third alternative, the reliable vertical rate or frame signal  
is utilized to attenuate, defeat or otherwise modify an anti-copy protection signal or a normal  
video signal.